

### Job Information

Job #: 96263

Date: November 20, 2019

Priority: —

Authorized OT: No

Authorized by:

### Customer Information

Name: Johnson Controls

Reason:

Contact:

Motor#:

PO#:

Application: —

Special notes:

### Name Plate Information

Manufacturer: YORK

Enclosure : Open Drop Proof (ODP)

Enclosure Type image

Serial#: W2013571602

Model#:

Service Factor: 1.0

Frame: 445TDZ

Horsepower/kW: 249

Rated RPM: 3600

Rated Amps: 268

Rated Voltage: 460

Phase: 3

Cycles: 60

Special design: No



Nameplate

DE

ODE

F1

F2

Top



## Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Does the shaft turn freely?: Yes Contaminant(s): None

Shaft rotation: Bi-directional Contaminant(s) Amt: None

Shaft grounding device present?: No Contaminant Image:



Type of grounding device:

Shaft runout(TIR-Inbound):

Bearings DE: Worn Bearings DE make: SKF

Insulated: No Bearing DE Size: 6313

Bearings ODE: Worn Bearings ODE make: SKF

Bearing Type: Ball Bearing ODE Size: 6313

Bearings Retainer: Yes Thermal Protection: Yes

Retainer condition: — Thermal Protection Type: —

Bearing Type Image



Bearing Make Image



Bearing Retainer Image



Thermal Protection



## Mechanical Inspection (Continued)

Lubrication Type: Grease

Thermal Protection device DE: —

Lubrication brand inbound: Mobile Polyrex EM

Thermal Protection device ODE: —

Lubrication brand outbound: Mobile Polyrex EM

Grease Amt DE: Full

Grease Cond. DE: New

Grease Amt ODE: Full

Grease Cond. ODE: New

Seals DE type: N/A

Seals Image:

Seals DE size:

Not Available

Seals DE (inbound) condition :

Seals ODE type: N/A

Seals Image 2:

Seals ODE size:

Not Available

Seals ODE (inbound) condition :

Shaft damage cause: None

Shaft Image:



## Mechanical Inspection (Continued)

Brg. Image:



Bushings/sleeves image:

Not Available

Water jacket: N/A

Fan: Ok

Frame cond.: Good

Not Available

Not Available



Motor Mount Position: Horizontal/Foot mount

Endbell type: Single piece

Missing parts?

- |   |                                  |   |
|---|----------------------------------|---|
| <input checked="" type="checkbox"/> J-Box cover | <input type="checkbox"/> O-rings | <input checked="" type="checkbox"/> J-Box |
| <input type="checkbox"/> HH cover               | <input type="checkbox"/> Glands  | <input type="checkbox"/> None             |

Endbell Image:



Other missing parts

## Mechanical Inspection (Continued)

### Air Gap Measurements (N/A on Single Piece Endbell)

Does Air Gap Meet Customer or EASA spec(<10% variation)?

DE @ 0	ODE @ 0	—
DE @ 90	ODE @ 90	
DE @ 180	ODE @ 180	
DE @ 270	ODE @ 270	

## AC Electrical Inspection

Number of leads: 6 Terminal Markings: 1-6

Length of leads: 24"

REF: NEMA Stds. MG 1-2009, Rev. 1-2010, 2.41-Terminal Markings Identified By Color:

Size of leads:	1-Blue	5-Black	P1-No color assigned
	2-White	6-No color assigned	P2-Brown
	3-Orange	7-No color assigned	
Lead condition: Good	4-Yellow	8-Red	

Lug type: Connections As Received:

Lug Condition: Good Terminal Lugs

Lug size:

Not Available

Lug Attachment: —



## AC Electrical Inspection (Continued)

Rotor Type: Cast Aluminum

Rotor

Rotor Condition: Ok

Num rotor bars:
Num broken bars:



### Rotor Test Results

Visual: Pass

Growler: Pass

Single phase: Pass

Stator type: Factory

If other, stator type:

Stator condition: Ok

If other, stator condition:

Failure location: In slot

If other, stator failure:

Stator Image:



Failure Image:



## AC Electrical Inspection (Continued)

Winding color: Like new

Winding image

Winding Thermal Protection: Yes

Winding condition : Solid



Not Available

Winding Thermal Protection DE: —

Winding Thermal Protection ODE: —

Stator test results: Salvageable

Megs incoming: Good

Surge incoming: Good

Hi-pot incoming: Good

### Winding Resistance Incoming

	Phases A to B	Phases B to C	Phases C to A	Resistive imbalance
Incoming	0.00	0.00	0.00	0.00

Leads/jumpers: Ok

Lead jumper Image. :

If other, leads/jumpers:

Not Available

## Mechanical Inspection

Inspect bolt holes and fasteners. Validate correct fasteners.

Shaft Condition: Worn

Bearings Retainer: Yes

Type of grounding device:

Bearing DE Size: 6313

Shaft runout(TIR-Inbound):

Bearing ODE Size: 6313

Retainer condition: Good

## Mechanical Inspection (Continued)

Seals DE condition :	Other	Brg. Seats DE:	Undersized
Seals DE type:	Slinger	If DE undersized, amt.:	2.5590
Seals DE size:		Brg. Seats ODE:	Good
Seals DE (inbound) condition :		If ODE undersized, amt.:	2.5592
Seals ODE condition :	None	Shaft damage:	OK
Seals ODE type:	N/A		
Seals ODE size:		Bushings/sleeves DE:	Ok
Seals ODE (inbound) condition :		Bushings/sleeves ODE:	Ok
Endbell fits/damage:	Good	Foot/Flange condition:	Ok
Endbell DE size:	5.5125	Foot flatness:	Pass
Endbell DE insulated?:	No	Does Air Gap Meet Customer or EASA spec(<10% variation)?	
Endbell ODE size:	5.5163 Bad		
Endbell ODE insulated?:	—		

## Conclusion

### Component Failure

### Cause of Failure

### Comments

Ode bearing housing fit bad. De shaft bearing fit bad wash and bake stator bearings have signs of wear and grease contamination

Service Tech name: Robert Wiley

Service Tech signature:

